

What is claimed is:

1        1. A method of evaporating thin film used in organic  
2        electro-luminescent display, comprising steps of:  
3        providing a display substrate;  
4        providing a mask having a plurality of openings and placed  
5        below the display substrate;  
6        providing a plane evaporation source placed below the mask,  
7        wherein the plane evaporation source has a plurality of  
8        evaporating material cells which are respectively aligned to  
9        the openings of the mask; and  
10       evaporating the evaporating material cells to deposit a  
11       plurality of thin films on predetermined regions of the  
12       display substrate.

1        2. The method according to claim 1, wherein the  
2        evaporating material cell is of organic electro-luminescent  
3        materials.

1        3. The method according to claim 1, wherein the formation  
2        of the plane evaporation source comprises steps of:  
3        providing a metal plate;  
4        providing at least one kind of evaporation source placed  
5        below the metal plate; and  
6        evaporating the evaporation source to form the  
7        evaporating material cells on the metal plate.

1        4. The method according to claim 3, wherein the formation  
2        of the plane evaporation source further comprises a step of  
3        providing a mask which has a plurality of openings and is

4 disposed between the metal plate and the evaporation source.

1 5. The method according to claim 3, wherein a plurality  
2 of types of evaporation sources are provided below the metal  
3 plate.

1 6. The method according to claim 3, wherein the metal plate  
2 is rotated during evaporation.

1 7. The method according to claim 3, wherein the back side  
2 of the metal plate comprises a plurality of supporting ribs.

1 8. A method of evaporating thin film used in organic  
2 electro-luminescent display, comprising steps of:  
3 providing a display substrate;  
4 providing a mask having a plurality of openings and placed  
5 below the display substrate;  
6 providing a first plane evaporation source placed below  
7 the mask, wherein the first plane evaporation source has a  
8 metal net and a plurality of first evaporating material cells  
9 which are respectively aligned to the openings of the mask;  
10 providing a second plane evaporation source placed below  
11 the first plane evaporation source, wherein the second plane  
12 evaporation source has a metal plate and a plurality of second  
13 evaporating material cells which are respectively aligned to  
14 the openings of the mask; and  
15 evaporating the first evaporating material cells and the  
16 second evaporating material cells to deposit a plurality of  
17 thin films on predetermined regions of the display substrate.

1       9. The method according to claim 8, wherein the first  
2       evaporating material cell and the second evaporating material  
3       cell are of organic electro-luminescent materials.

1       10. The method according to claim 8, wherein the formation  
2       of the first plane evaporation source comprises steps of:  
3        providing the metal net;  
4        providing a first mask which has a plurality of first  
5       openings and is placed below the metal net;  
6        providing at least one kind of first evaporation source  
7       which is placed below the first mask; and  
8        evaporating the first evaporation source to form the first  
9       evaporating material cells on the metal net.

1       11. The method according to claim 10, wherein the metal  
2       net is rotated during evaporation.

1       12. The method according to claim 10, wherein the back side  
2       of the metal net comprises a plurality of supporting ribs.

1       13. The method according to claim 8, wherein the formation  
2       of the second plane evaporation source comprises steps of:  
3        providing the metal plate;  
4        providing a second mask which has a plurality of first  
5       openings and is placed below the metal plate;  
6        providing at least one kind of second evaporation source  
7       which is placed below the second mask; and  
8        evaporating the second evaporation source to form the  
9       second evaporating material cells on the metal plate.

1        14. The method according to claim 13, wherein the metal  
2        plate is rotated during evaporation.

1        15. The method according to claim 13, wherein the back side  
2        of the metal plate comprises a plurality of supporting ribs.